

9/13/19 Discussion

1. We can run the model-based methods for the 3W system, using the on-the-fly up-sampling and computation of the patterns, without using the GPU. It takes about 1 and a half day for 200 iterations for the model-based method and about 3 days for 200 iterations for the model-based method with positivity constraint. Using GPU is not stable and so not suggested at this time.
2. New multi-object (more details next slide).
3. Parameters and PSF for FairSIM data.

First task: investigate 3D-SIM data/restoration with simulated noise and noisy parameters, on a simulated bead; learn how to divide a task into smaller sub-tasks.

	Cong	Saba
9/13	Conf. paper draft	Forward model
9/20		Down-sampling
9/27		MB reconstruction
10/04		Draft report
10/11	Conf. paper	Noisy data
10/18		First report - Noisy parameter
10/25		Noisy reconstruction
11/01	FairSIM	Analysis/Recap

Second task: investigate 3D-SIM data/restoration with noisy PSF (both simulated and experimental), on a more challenging simulated object. Saba will come up with sub-tasks.

	Cong	Saba
11/08		
11/15	AD/different Nslits	Noisy multi-object
11/22		
11/29		(thanksgiving)
12/06	AD results	Final report

1. Write the draft sections 2 (MBPC method), 4 (analysis of simulated results) of the ISBI paper.
2. Running the following experiments for the refined multi-object with refined axial frequency, for the 3W system, for both MB and MBPC methods:

	Noiseless	SNR = 15 dB
15/15	200 iter	200 iter
7/15	400 iter	400 iter
5/15	400 iter	400 iter

3. FairSIM PSF and trying to get reconstruction for FairSIM data.